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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,727	11/21/2003	Charles Stanley Aldrich	2003-0419.02	1832
21972	7590	09/01/2005	EXAMINER	
LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999			HSIEH, SHIH WEN	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/718,727	Applicant(s) ALDRICH ET AL.	
	Examiner Shih-wen Hsieh	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 16-23 is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-21-03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9, 10, 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Premnath et al. (US Pat. No. 6,283,576 B1).

In regard to:

Claim 9:

Premnath et al. teach:

A print head cap (60, figs. 2-4), comprising a base (52, fig. 3) and a lip portion (50, fig. 2) extending from said base, said lip portion defining an open interior region (can be seen as 56, figs. 3 and 4), said print head cap having a vent hole (86, fig. 4) in fluidic communication with said open interior region, said base including a serpentine channel (80, figs. 3 and 4) extending from said vent hole and around said base, refer to col. 4, line 54 to col. 5, line 4.

Claim 10:

Premnath et al. further teach:

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said base having an outer sidewall portion, said serpentine channel being formed in said outer sidewall portion. Please note: using the vacuum path (58) as the center line, then the long slanted lines in (52, fig. 3) can be considered as the outer side wall portion of the base (52), and the serpentine channel (80) is formed in that portion.

Claim 11:

Premnath et al. further teach:

said base (52) having a first surface (the surface where the vent hole 86 is situated in figs. 3 and 4) separated from a second surface (the surface in fig. 3, where an exit hole without a numeral is situated in fig. 3, or rather, the left vertical surface in fig. 3), said vent hole (86, fig. 4) being located at said first surface of said base, said base having a terminal opening (not numbered as shown in fig. 3) located at said second surface of said base, said serpentine channel (80, figs. 3 and 4) defining a vent path from said vent hole of said base to said terminal opening of said base, refer to col. 4, line 54 to col. 5, line 4.

Claim 14:

Premnath et al. further teach:

wherein said serpentine channel spirals in a step-like manner around said base of said print head cap in an outer sidewall portion of said base, refer to fig. 3, the step-like manner of the serpentine channel.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Premnath et al.

The device of Premnath et al. DIFFERS from claims 12 and 13 in that it does not teach:

The print head cap of claim 9, wherein said serpentine channel has a length to width ratio, or a length to depth ratio, of 30: 1 or larger (claim 12); and

The print head cap of claim 9, wherein said serpentine channel has a length to width ratio, or a length to depth ratio, of about 120: 1.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to select a proper length to width ratio for the serpentine channel, since it has been held that discovering an optimum value of a result effective variables, such as the ratios disclosed in these two claims, involves only routine skill in the art, refer to MPEP 2144.05 II B.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Premnath et al. in view of Michael (US Pat. No. 5,956,053).

The device of Premnath et al. DIFFERS from claim 15 in that it does not teach: said vent hole being formed in said base, said base having an upwardly extending wall surrounding said vent hole.

Michael teaches a capping device in his fig. 4-6 that a vent throat (144, corresponds to vent hole in the instant application) is disposed in the bottom wall (133) of the cavity (the sealing chamber 125). The vent throat (144) extends upwardly above the bottom wall (133) and forms a neck portion (145), refer to col. 12, lines 9-23.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Premnath et al. to include the neck portion as taught by Michael for the purpose of preventing minor ink leakage from print head, such as during an accidental drool event from immediately draining into the vent throat (144).

Allowable Subject Matter

6. Claims 1-8 and 16-23 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 1-8 and 16-23 is the inclusion of the limitation of said base including a serpentine channel extending from said open interior region to said vent exit of said cap holder. It is this limitation found in each of the claims, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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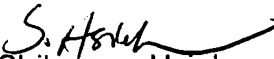
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

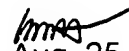
you have questions on access to the Private PAIR system, contact the Electronic

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SHIH-WEN HSIEH
PRIMARY EXAMINER


Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH


Aug. 25, 2005

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